

CLAIMS

1. A method to alter one or more plant characteristics, said method comprising modifying, in a plant, expression of one or more nucleic acids and/or modifying level and/or activity of one or more proteins, which nucleic acids and/or proteins are essentially similar to any one of SEQ ID NO 1 to 2755, and wherein said one or more plant characteristics are altered relative to corresponding wild type plants.
2. A method according to claim 1, wherein said altered plant characteristic is selected from any one or more of the following: altered development, altered growth, increased yield and/or biomass, enhanced survival capacity, enhanced stress tolerance, altered plant architecture, altered plant physiology, altered plant biochemistry, altered metabolism, altered DNA synthesis, altered DNA modification, altered endoreduplication, altered cell cycle, altered cell wall biogenesis, altered transcription regulation, altered signal transduction, altered storage lipid mobilization and/or altered photosynthesis, each relative to corresponding wild type plants.
3. A method according to claim 2, wherein said altered metabolism comprises altered nitrogen and/or altered carbon metabolism.
4. A method according to claim 2, wherein said increased yield and/or biomass, comprises increased seed yield.
5. A recombinant nucleic acid comprising:
- (a) one or more nucleic acid sequences essentially similar to any one of SEQ ID NO 1 to 2755 or the complement strand thereof; optionally operably linked to
 - (b) a regulatory sequence, and optionally operably linked to
 - (c) a transcription termination sequence
6. A recombinant nucleic acid according to claim 5, wherein said regulatory sequence is a plant-expressible promoter.
7. A recombinant nucleic acid according to claims 6, wherein said plant-expressible promoter is any one of the promoters listed in Table I, II, III or IV.

8. A method for making a transgenic plant or plant cell having one or more altered plant characteristics when compared to the corresponding wild-type characteristics, said method comprising introduction of a recombinant nucleic acid according to claim 5, 6 or 7 into said plant or plant cell.

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9. A method according to claim 8, wherein said recombinant nucleic acid is stably integrated into the genome of said plant .

10. A method according to any of claims 1 to 4 or 8 or 9, comprising overexpression of one or more nucleic acids essentially similar to any one of SEQ ID NO 1 to 2755.

11. A method according to any of claims 1 to 4 or 8 or 9, comprising downregulation of expression of one or more nucleic acids essentially similar to any one of SEQ ID NO 1 to 2755.

15 12. A transgenic plant having one or more altered characteristics when compared to the corresponding wild-type plant, characterized in that said plant has modified expression of one or more nucleic acids and/or modified level and/or activity of one or more proteins, said nucleic acid and/or protein being essentially similar to any one of SEQ ID NO 1 to 2755.

20 13. A transgenic plant obtainable by a method according to any of claims 1 to 4 or 8 to 11.

14. A transgenic plant comprising an isolated nucleic acid and/or protein sequence essentially similar to any one of SEQ ID NO 1 to 2755.

25 15. An ancestor, progeny, or any plant part, particularly a harvestable part, of a transgenic plant of claim 12 or 14.

30 16. A host cell having one or more altered characteristics when compared to the corresponding wild-type host cell, characterized in that said host cell has modified expression of one or more nucleic acids and/or modified level and/or activity of one or more proteins, said nucleic acid and/or protein being essentially similar to any one of SEQ ID NO 1 to 2755.

35 17. Use of a nucleic acid sequence or protein essentially similar to any one of SEQ ID NO 1 to 2755, for altering one or more plant characteristics.

18. A method for the production of plants with one or more altered characteristics when

compared to the corresponding wild-type plants, which method comprises the use of a nucleic acid sequence essentially similar to any of SEQ ID NO 1 to 2755 in marker assisted breeding.

19. A method for the production of plants with one or more altered characteristics when compared to the corresponding wild-type plants, which method comprises the use of a nucleic acid sequence essentially similar to any of SEQ ID NO 1 to 2755 in conventional breeding.

20. A plant obtainable by the methods according to claim 18 or 20.

21. Use of a nucleic acid and/or a protein essentially similar to any one of SEQ ID NO 1 to 2755 as a growth regulator.

22. A growth regulating composition comprising a nucleic acid and/or a protein essentially similar to any one of SEQ ID NO 1 to 2755.

23. A method for the production of a growth regulator, comprising the production of a nucleic acid and/or a protein essentially similar to any one of SEQ ID NO 1 to 2755.

24. Method for the production of enzymes and/or pharmaceuticals, which method comprises modifying expression of a nucleic acid, and/or modifying level and/or activity of a protein, said nucleic acid and/or protein being essentially similar to any one of SEQ ID NO 1 to 2755.

25. Use of plants according to claim 11 to 14, for the production of enzymes and/or pharmaceuticals.

26. Enzymes and pharmaceuticals produced according to the method of claim 24.

27. Use of a nucleic acid or a protein essentially similar to any one of SEQ ID NO 1 to 2755, as a therapeutic agent, a diagnostic means, a kit or plant effective agent.

28. A therapeutic composition comprising a nucleic acid and/or a protein essentially similar to any one of SEQ ID NO 1 to 2755.

29. A diagnostic composition comprising a nucleic acid and/or a protein essentially similar to any one of SEQ ID NO 1 to 2755.

30. A kit comprising a nucleic acid and/or a protein essentially similar to any one of SEQ ID NO 1 to 2755.

31. A plant effective agent comprising a nucleic acid and/or a protein essentially similar to any one of SEQ ID NO 1 to 2755.

32. Method for the manufacturing of a therapeutic composition, a diagnostic composition, a kit or a plant effective agent, comprising the production of a sequence essentially similar to any one of SEQ ID NO 1 to 2755.

33. A food product derived from a plant or host cell according to any one of claim 12 to 16.

34. Use of a food product according to claim 33 in animal feed or food.

35. Method for the production of a food or feed product, which method comprises modifying expression of a nucleic acid, and/or modifying level and/or activity of a protein, said nucleic acid and/or protein being essentially similar to any one of SEQ ID NO 1 to 2755.

36. Use of a nucleic acid or a protein essentially similar to any one of SEQ ID NO 1 to 2755 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures.

37. Use according to claim 36, wherein said cell is derived from a plant, animal, bacterium, fungus, yeast, insect, algae.

38. An isolated nucleic acid comprising one or more of the regulatory elements upstream of the startcodon of any of the nucleic acids represented by SEQ ID NO 1 to 2755.

39. An isolated nucleic acid according to claim 38, wherein said regulatory element is the natural promoter of any one of said nucleic acids represented by SEQ ID NO 1 to 2755.